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ABSTRACT

The problem investigated in this study was whether male and female students would evaluate professors' teaching methods differentially as a function of their own sex and/or the sex of the particular professor. The subjects, fifty male and fifty female seniors and first year graduate students in psychology at San Jose State University, were divided into two groups of 25 males and 25 females each. The first group was administered the Methods of Teaching Form A, which described the instructional methods of six different professors and required the student to rate him or her on six different scales. Form B was administered to the second group. Both forms were identical except for the sex of the professor described, which was varied so that, while each group rated three males and three females, those professors that were given men's names on Form A were given women's names on Form B. The results of a series of three-way analyses of variance indicate that male professors were given significantly higher ratings than were female professors for identical teaching methods by male students. Female students rated male and female professors equally, except on those scales assessing power and willingness to take the course. These results suggest that students' evaluations of the teaching methods of their professors may be strongly influenced by their own sex, as well as by the sex of the professor involved. (Author/MV)

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THE EFFECT OF THE SEX OF STUDENT AND PROFESSOR ON STUDENT EVALUATION OF PROFESSORS' METHODS OF TEACHING

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THE EFFECT OF THE SEX OF STUDENT AND PROFESSOR ON STUDENT EVALUATION OF PROFESSORS' METHODS OF TEACHING

The variety of externally imposed obstacles confronting the female in our society who chooses to pursue an academic career has been extensively documented. For example, Walster, Cleary and Clifford (1971) found that, contrary to their own hypothesis, race of an applicant was not a significant factor affecting college admission. However, at the lower ability level, males were given preferential treatment. The authors concluded that, since lower ability students are more numerous, women are clearly discriminated against in admission procedures. The question remains as to whether, having overcome her own fears and the prejudices of others to ascend the academic hierarchy, the female professor is finally evaluated nonprejudicially by males, as well as by other females.

A variety of studies have been concerned with sex bias in the evaluation of professional achievements, in general. Several studies by Goldberg and his colleagues have involved the attitudes of women college students toward identical paintings and articles produced by women and men. For example, Goldberg (1968) found that women students rated male authors higher than female authors of six identical articles, even when they referred to traditionally feminine fields. In a study by Pheterson, Kiesler and Goldberg (1971), women judged entry level paintings by men as significantly better than identical paintings by women. No differences were found among winning paintings. The authors concluded that women who are attempting to accomplish are judged less favorably than are men, while women who have already achieved success are judged equally. The fact that this conclusion is based upon the results of two scales, technical competence and the artist's probable future success, somewhat mitigates its

strength insofar as the improbability of success may be a realistic social evaluation rather than a prejudicial attitude. Obviously women submitting winning paintings have already achieved success and would, therefore, not be rated differently on this scale. In addition, these authors commented that, although they had no empirical support, they believed that men were also fair to successful women.

Consistent with these results were those of Taynor and Deaux (1973), who found no bias against females when their performance was clearly evaluated. On the other hand, Deaux and Taynor (1973) asked college students to evaluate applicants for a study-abroad scholarship and found that competent males were rated more highly than competent females, while males of low competence were rated lower than females of low competence. These ratings were made by students of both sexes, although the authors found a non-significant trend for this bias to be more pronounced for male subjects. In addition, Feldman-Summers and Kiesler (1974) reported that, whether evaluating undergraduates on an intellectual task or competent and successful physicians, college students "...attributed greater motivation to females than to males. In addition, males perceived the female physician as being less able and having an easier task than the male physician. However, female subjects perceived the female physician as having a harder task than the male physician (p. 846)."

A recent replication of Goldberg's study by Levenson, Burford, Bonno and Davis (1975) not only produced no significant differences in ratings of male and female authors, but actually found that females rated student essays by females higher than identical ones by males.

Mischel (1974), using the same fields and format as did Goldberg (1968), but including both male and female high school and college students, found

that judges, in the U.S., tended to evaluate more highly authors whose sex was normatively associated with the field in which the article was written. These evaluations were not affected by the sex of the subjects. The authors concluded that students, in the U.S., don't discriminate against women in certain female-stereotyped fields. However, high school students clearly favored males in the area of primary education. Thus, "sex bias...appeared to be a function both of the particular field in which work was judged and of the educational level of the subject doing the evaluation (Mischel, 1974, p. 165)."

Deaux and Emswiller (1974) found that "...performance by a male on a masculine task was more attributed to skill, whereas an equivalent performance by a female on the same task was seen to be more influenced by luck. Contrary to prediction, the reverse did not hold true for performance on a feminine task (p. 80)." Men were generally seen as more skillful, independent of the task.

While this series of studies certainly presents a complex picture of the nature of attitudes toward the professional achievements of women and one which most likely reflects the relatively rapid social and attitudinal changes of the past years, there would certainly seem to be a tendency to discriminate, with the possible exception of women who are successful, particularly in certain feminine-stereotyped fields.

Several studies have dealt directly with attitudes toward and, more specifically, student ratings of female professors, a group of women whose roles and behavior certainly impinge more directly upon college students, much as the attitudes toward and evaluations of their work by these students more directly affect the day to day ambience and the actual careers of academic women. Elmore and LaPointe (1974), based upon their own and prior findings concerning college students' actual evaluations of their

professors, concluded that there were "...no significant or practical differences between ratings of faculty (p. 388)." In a second study, the same authors (Elmore and LaPointe, 1975) found certain very limited differences, namely, a tendency on the part of students to perceive same-sex professors as more interested and female professors, who rated themselves as low on warmth, as more effective than male professors who rated themselves this way. It should be noted that these results are not based upon the type of format utilized in the previous studies, but instead upon the Instructional Improvement Questionnaire, which contains 20 items related to teaching skills in quite concrete and behavioral ways. Such items as "Made clear assignments" or "Promptly returned homework and tests" may allow less room for the introduction of stereotypes and bias than does the prior methodology, which utilizes judgments involving such areas as competence, rationality, emotionality, etc. If attitudes are to be assessed, it would seem that rating scales must be constructed to reflect areas of cultural bias or stereotypic attitudes toward females.

Harris (1975) had subjects evaluate teachers on the basis of a list of sex-stereotyped characteristics. Teachers with more masculine teaching styles were rated more highly than those with feminine teaching styles. According to the author, male teachers, as well as teachers of engineering, were viewed as more masculine than teachers of nursing. Thus, it would seem that male teachers, as well as teachers in certain stereotypically male fields, are, at least potentially, viewed more favorably.

In a second study involving teachers of nursery school through college, Harris (1976) found that college students rated masculine-stereotyped teachers more favorably at all levels and on all measures except that assessing warmth. Masculine-stereotyped teachers were rated as warmer and more superior by male students, while feminine-stereotyped teachers were

evaluated as warmer and more superior by females. Sex of subject also influenced the perception of teachers, in general, as more intelligent by female students. Finally, female teachers were, in general, perceived as warmer and more feminine than male teachers. These were the only factors influenced by sex of teacher.

While the initial series of studies, assessing attitudes toward authors or painters, utilized a consistent methodology, involving ratings of work samples, studies of students' evaluations of male and female professors have tended to employ methods which are not only different from the above, but also from each other. While the two studies conducted by Elmore and LaPointe (1974, 1975) involved actual students' ratings of their professors as fairly specific behavioral criteria, those of Harris (1975, 1976) focused on the evaluation of stereotypic behaviors of male and female professors rather than on actual or contrived samples of their teaching practices. In essence, judges were evaluating attitudes toward masculine and feminine stereotypic descriptions of male and female teachers and not simply attitudes toward male and female teachers in various fields. While sex differences were present on two of the six ratings scales which Harris (1976) used, she treats these results as secondary and fairly inconsequential.

The present study was designed as an initial attempt to introduce consistency and comparability in examining sex bias in students' evaluations of male and female professors. It is the contention of this author that the effect of student and faculty sex differences on the evaluation of the latter's performance should be examined in a consistent and conceptually meaninful way before being dismissed as nonsignificant. The methodology developed by Goldberg and used in the various studies evaluating attitudes toward the work of painters and authors seemed most appropriate and useful in terms of the body of extant literature already available using this

methodology. The design, as extended by Mischel (1974), is appropriate for assessing the effect of sex of student and professor on students' evaluations of faculty members in a variety of areas. This would seem to be a prior, or at least different, question that that of Harris (1975, 1976) concerning students' evaluations of stereotypic behavior. Furthermore, since the failure of Elmore and LaPointe (1974, 1975) to find significant sex differences may have been a function of the scale which they analyzed and, thus, an artifact of their methodology rather than support for the absence of such bias, the present study used conceptually meaningful scales, designed to reflect current stereotypes.

Thus, both male and female college students were asked to evaluate the teaching methods of three male and three female professors in two traditionally male, two traditionally female and two relatively non-sex-linked fields, in keeping with Mischel's (1974) finding that individuals tend to be rated more favorably in fields with which they are normatively associated. In each case, a paragraph describing the teaching practices in non-stereotyped ways was presented for evaluation. Thus, unlike the Harris studies (1975, 1976), attitudes toward male and female teachers and their teaching fields rather than toward stereotypes were assessed. Unlike the studies of Elmore and LaPointe (1974, 1975), the rating scales were designed to be sensitive to cultural stereotypes and included instrumental, affective and non-sex-linked concepts.

Thus, the present study was designed to determine the effect of the sex of students and professors on students' evaluations of professors' teaching methods in a variety of fields. Since the previous research, due to extensive methodological variation and somewhat conflicting results, does not permit clear interpretation of the findings, this study was undertaken as an initial attempt to introduce order and clarity into the area.

Inconsistencies in the available data prevent the positing of specific predictions at this point. As a result of this study, however, clear and more consistent predictions may emerge.

METHOD

Subjects

The subjects were 50 male and 50 female senior and first year graduate students at San Jose State University.

Instrument

Each subject completed a rating form entitled Philosophy of Education, which described the teaching methods and practices of six professors, two in traditionally male fields, business administration and chemistry, two in traditionally female fields, home economics and elementary education, and two in relatively non-sex-linked areas, psychology and history. Each descriptive paragraph was followed by six bipolar scales, on which ratings of 1-10 could be assigned. The scales were: effective-ineffective; powerless-powerful; concerned-unconcerned; likeable-not at all likeable; poor-excellent; and would definitely-would definitely not take the course. The first two scales were chosen to assess instrumental aspects of the professor's technique, the second pair were more affectively, or femininely, oriented, while the third pair were designed to be more generally evaluative. As such, any bias in terms of kinds of qualities might be reflected as differences among scales. Form A alternated the sex of the instructor described, beginning with a female name. Form B was identical to Form A, except for using opposite sex names to identify each professor. For example, in Form A, the first method described was attributed to Dr. Ann Kent, while the first description in Form B bore the name, Dr. Arthur Kent.

Procedure

Twenty-five male and twenty-five female students each completed Form A, while the same number were administered Form B. The subjects were instructed simply to read each paragraph and then to rate that professor's method or viewpoint on the six scales that followed it.

RESULTS

The questionnaire data were analyzed by means of six three-way analyses of variance, with sex of students, sex of professors and the academic field in which the professors were supposed to teach as the independent variables. The results of these analyses indicate that, in no case, did the particular academic area described affect the ratings of professors by female or by male students.

For the first three scales, defined by the adjectives effective-ineffective, concerned-unconcerned and likeable-not likeable, significant results were attained for the Sex of Student and Sex of Professor variables, as well as for their interaction (Table 1). Inspection of the mean ratings for male and female professors by male and female students (Table 2) indicated that female students rated professors equally, while male students assigned higher ratings to male than to female professors ($t=6.28$, $p<.001$; $t=3.33$, $p<.001$; $t=6.06$, $p<.001$).

For the fourth scale which required ratings of relative excellence, the Sex of Professor variable achieved significance as did the Sex of Student X Sex of Professor interaction (Table 1). Inspection of the means (Table 2) again indicated that female students rated professors of both sexes equally, while male students gave higher ratings to male professors ($t=4.59$, $p<.001$).

Thus, the pattern which has emerged on these four scales is one in which female students rated areas of teaching equally, regardless of the sex of those professors, while males rated males more highly, regardless of field. However, two scales remain.

The scale assessing power also resulted in both female and male students assigning higher ratings to male professors. While the main effects were again Sex of Student, Sex of Professor and their interaction, male students rated male professors higher ($t=4.31$, $p<.001$), as did female students ($t=3.33$, $p<.001$).

On the final scale, would-would not take the course, both the Sex of Professor and the interaction of Sex of Student and Sex of Professor conditions achieved significance (Table 1). The extremely high significance of the latter can be accounted for by an unexpected result. While the male students, consistent throughout the six scales, again rated male professors significantly more favorably than female professors ($t=6.61$, $p<.001$), female students rated female professors significantly more favorably ($t=4.84$, $p<.001$) than male professors. In other words, despite the fact that female students rated male and female professors equally on the previous five scales, they have indicated that they would, nevertheless, prefer to take the courses described from a female professor.

DISCUSSION

Subject fields considered to be associated with each sex did not, in this study, affect the ratings of male and female professors by students of either sex, thus supporting the results of Goldberg's study (1968), in which written work was evaluated only by female students rather than that of Mischel (1974), who found that authors were evaluated more highly in fields in which they tend to be normatively associated. While the assumption that these fields are clearly associated with a particular sex may be entirely erroneous, it is also possible that, while these fields may be associated with one sex or the other, the teaching of them at the

university level may be associated by students with male faculty. It seems more likely, however, based upon the overall results, that sex of the professor in question overshadowed the issue of subject field.

In this study, male students rated female professors significantly lower on every scale than they did male professors. Thus, sex, which should be an entirely irrelevant variable, seemed to be the crucial one on which faculty members were evaluated by male students. These results clearly dispute the belief expressed by Pheterson, Kiesler and Goldberg (1971) that men would rate highly successful women fairly and instead tend to support those of Deaux and Taynor (1973) and Feldman-Summers and Kiesler (1974).

The women students in this study rated female professors equally with male professors on four scales, while rating them as less powerful. Since the relative powerlessness of women faculty members may be a reality (Bernard, 1964; Loeb and Ferber, 1971; Simon, Clark and Galway, 1967) rather than reflective of student bias, it would seem that female students did not discriminate on the basis of sex, except in choosing to take a course from a female professor. This unexpected result may reflect the female student's opinion that she will be treated more fairly, more leniently, with greater sympathy for the obstacles which she faces or without seductiveness. Whether further research may support one of these possibilities or raises another issue, the present research suggests that excellence, concern, likeability and effectiveness of the faculty member in question are not the salient issues. Either her relative powerlessness in the estimation of these female students or some variable not assessed in this study would seem to account for this rather interesting result. Further research, particularly at other universities, will serve to elucidate this issue.

In summary, then, the sample of college students who participated in this study, males to a greater extent than females, are clearly biased by

supposedly irrelevant information, the sex of the professor. It should be noted that this sample consists not of high school students (Mischel, 1974) or even lower division college students (Basbadelis, 1973), but of upper division and graduate students at a large, urban university. While such results require careful replication, using the same research design in a variety of university settings and may also be sensitive to consciousness-raising as a function of time, they certainly do not support the negative findings of Elmore and LaPointe (1974, 1975) or the contention of Harris (1976) that it is feminine stereotypes, and not females per se, which are devalued. It is suggested that the research design and specific rating scales used in the present study are more sensitive to student bias as a function of their own and professors' sex than the methodologies employed by these authors. While replication and extension of this study using a consistent methodology is recommended, if this sample is at all representative of college students in general, then the use of student evaluations of the performance of professors deserves careful reevaluation.

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TABLE 1

SUMMARY OF ANALYSES OF VARIANCE FOR THE SIX RATING SCALES

SOURCE	df	Effective - Ineffective		Concerned - Unconcerned		Likeable - Not Likeable		Excellent - Poor		Powerful - Powerless		Would Definitely - Would Definitely Not Take	
		MS	F	MS	F	MS	F	MS	F	MS	F	MS	F
Sex of Student	1	56.43	16.92**	29.93	8.16*	72.11	21.11**	.02	.005	38.00	10.43**	2.67	.66
Sex of Professor	1	119.71	35.89**	38.51	10.50*	112.67	32.98**	74.20	24.37**	131.60	36.12**	45.93	11.33**
A X B	1	112.67	33.79**	62.73	17.10**	102.51	30.01**	95.77	31.46**	39.01	10.71*	305.31	75.30**
Error	576	3.33		3.67		3.42		3.04		3.64		4.05	

* $p < .01$

** $p < .001$

TABLE 2

MEAN RATINGS FOR THE SIX SCALES

	Effective - Ineffective		Concerned - Unconcerned		Likeable - Not Likeable		Excellent - Poor		Powerful - Powerless		Would Definitely - Would Definitely Not Take	
	Female Professors	Male Professors	Female Professors	Male Professors	Female Professors	Male Professors	Female Professors	Male Professors	Female Professors	Male Professors	Female Professors	Male Professors
Female Students	3.13	3.16	3.60	3.46	3.54	3.58	4.25	4.21	3.56	4.73	4.81	3.44
Male Students	2.88	4.64	3.40	4.55	3.41	5.10	3.51	4.99	3.80	5.25	3.32	5.30